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Water Supply Outlook For Idaho

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SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

IDAHO SOIL CONSERVATION DISTRICTS
IDAHO DEPARTMENT OF WATER RESOURCES

AS OF
Mar. 1, 1982

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: Lone Cone, near Norwood, Colorado, blanketed by its winter mantle of snow.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR IDAHO

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

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WATER SUPPLY OUTLOOK for IDAHO



GENERAL STATEMENT FOR MARCH 1, 1982

Water supplies for 1982 are forecast to be good to excellent throughout Idaho. April through September seasonal runoff is predicted to range from 101 percent of average for the St. Joe River at Calder in Northern Idaho to 133 percent of normal for the Montpelier Creek drainage in Southeastern Idaho.

In general, snowfall during February was near to well above normal. Snowpack accumulation near March 1 varied from a low of 91 percent of average on the Beaver-Camas Creek drainages east of Dubois to a high of 146 percent on the Portneuf drainage in Southeastern Idaho. Higher than normal snow densities indicate the snowpack has warmed and settled. Continued mild temperatures may result in an earlier than normal runoff.

February started out very cold and dry and ended mild and very wet with numerous rivers and streams flooding from both the rain and low elevation snowmelt. However, low elevation snowpack still remains near or above normal in most areas.

Precipitation across Idaho continued well above normal. The average for the month was 161 percent of normal with a range from 96 percent at Grace to 201 percent at Porthill. For the water year the State stands at 148 percent with all areas above 100 percent.

Temperatures across the State range from near normal in the extreme north to 8 degrees below normal at Twin Falls.

Soils are not frozen and soil moisture conditions are saturated at the low and middle elevations and are wet in the higher elevations.

Rain and melting snow has improved the reservoir storage conditions. Some reservoirs have already been filled to or near capacity. Storage at the beginning of the irrigation season is expected to be good to excellent.

VALLEY PRECIPITATION 1/
Division Averages and Departures
In Inches

DRAINAGE DIVISIONS	Winter Feb. 1982		Fall - Winter Nov. 81 - Feb. 82	
	Observed	Departure <u>2/</u>	Observed	Departure <u>2/</u>
Kootenai, Canada & U.S.	3.24	+ 1.25	12.44	- .79
Flathead	3.17	+ 1.43	10.91	+ .71
Clark Fork	2.15	+ .88	8.62	+ 1.84
Pend Oreille-Spokane	4.62	+ 1.78	16.26	+ 1.24
Upper Snake	2.01	+ .16	11.70	+ 3.11
Snake River Plain	1.04	+ .26	5.74	+ 1.44
Salmon-Payette-Boise	3.38	+ 1.63	14.85	+ 4.79
Clearwater	3.70	+ .83	16.87	+ 1.95
Owyhee-Malheur	1.26	+ .41	8.15	+ 3.33

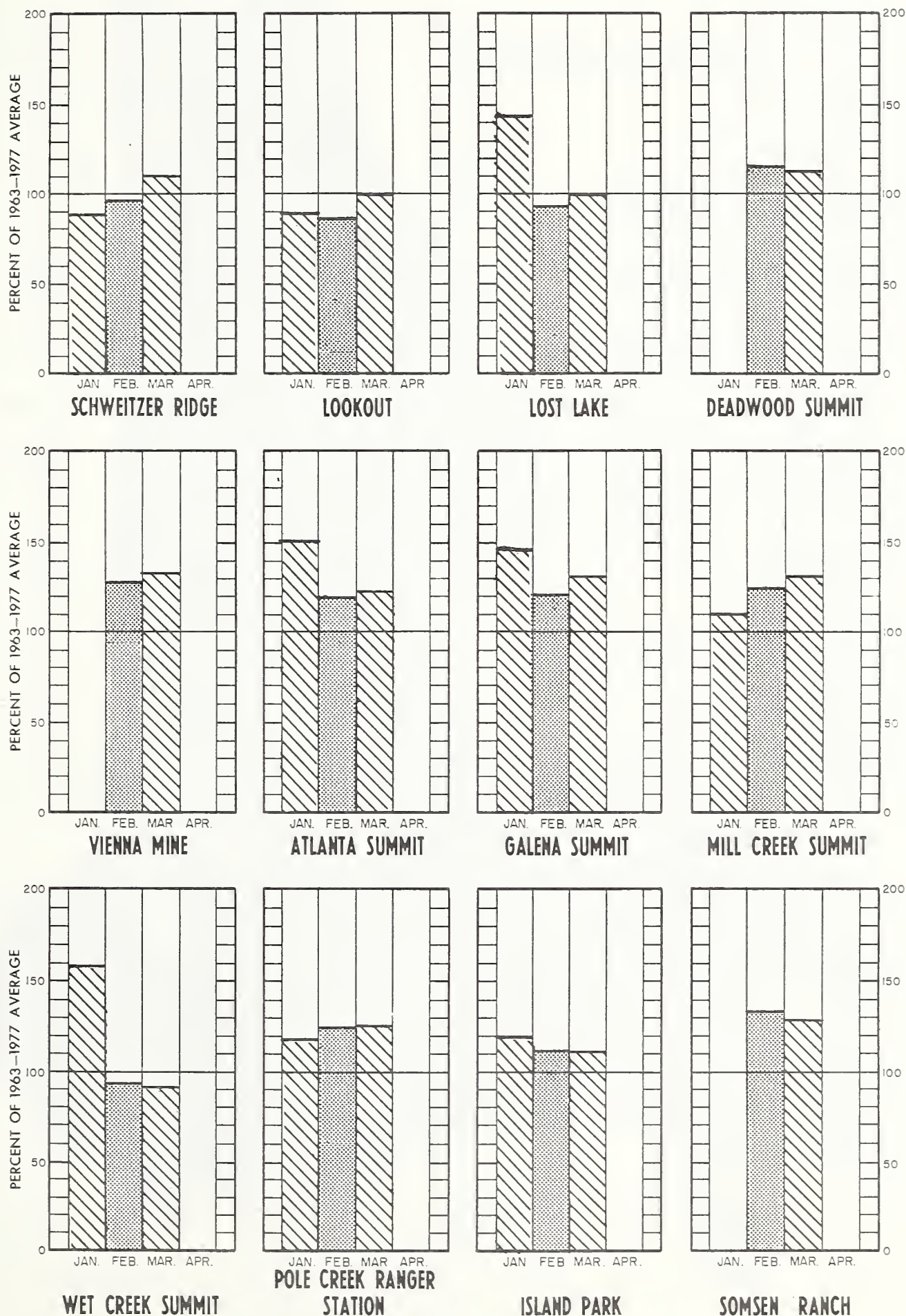
1/ Preliminary analysis and data by the National Weather Service and Meteorological Service of Canada.

2/ Departure from 15-year (1963-1977) drainage division average.

SNOW WATER DEPTHS ACCUMULATION For Selected Snow Courses

As Compared To 1963 - 1977 15 Year Average

MARCH 1, 1982



COMPARISON of SNOW COVER

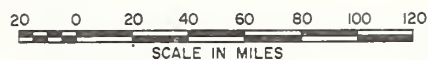
RIVER BASIN WATERSHED	NO.OF COURSES AVERAGED	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF :	
		LAST YEAR	1963-77 AVERAGE
<u>UPPER COLUMBIA BASIN</u>			
Kootenai River	36	157	106
Pend Oreille River	131	169	106
Clark Fork River	88	193	109
Flathead River	43	143	101
Priest River	5 - 6	170	110
Spokane River	12	221	99
Hayden Creek	4	1196	--
<u>LOWER SNAKE RIVER BASIN</u>			
Palouse River	3	--	92
Clearwater River	15 - 17	218	104
Salmon River	20 - 24	179	121
Lemhi River	6	209	129
<u>MIDDLE SNAKE RIVER BASIN - Northside</u>			
Little Lost River	5 - 6	157	111
Big Lost River	9	129	101
Fish Creek	2	125	96
Little Wood River	4	125	99
Big Wood River	11 - 13	182	124
Boise River	16 - 19	232	122
Canyon Creek	3	345	148
Payette River	14 - 17	175	116
Weiser River	2 - 3	173	112
Mann Creek	1 - 4	152	116
<u>MIDDLE SNAKE RIVER BASIN - Southside</u>			
Raft River	5 - 7	234	129
Goose-Trapper Creek	3 - 5	261	142
Salmon Falls Creek	10	322	126
Bruneau River	5	311	136
Owyhee River	6	452	145
Jordan Creek	3	307	132
<u>UPPER SNAKE RIVER BASIN</u>			
SNAKE BASIN - Above Palisades Reservoir	18	236	126
Camas-Beaver Creeks	2	119	91
Henrys Fork River	11	171	118
Teton River	9	228	134
Willow Creek	5 - 9	223	133
Blackfoot River	3 - 6	241	122
Portneuf River	4 - 10	314	146
<u>GREAT BASIN</u>			
Bear River - Upper	4	238	115
Bear River - Lower	14	278	124
Montpelier Creek	6	271	136
Mink Creek	7	285	128
Cub River	3 - 4	229	110
Malad River	4 - 6	316	129

SNOW WATER DEPTHS

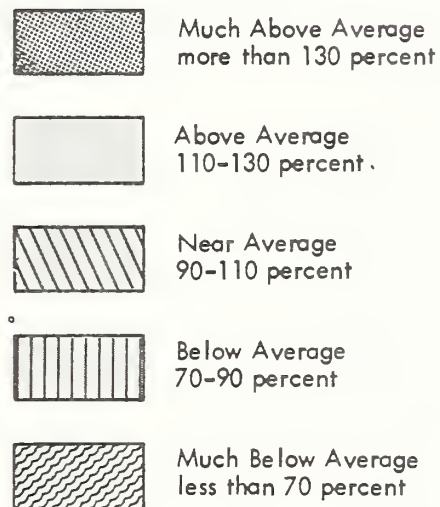
As percent of 1963 - 77 15 year average

MARCH 1982

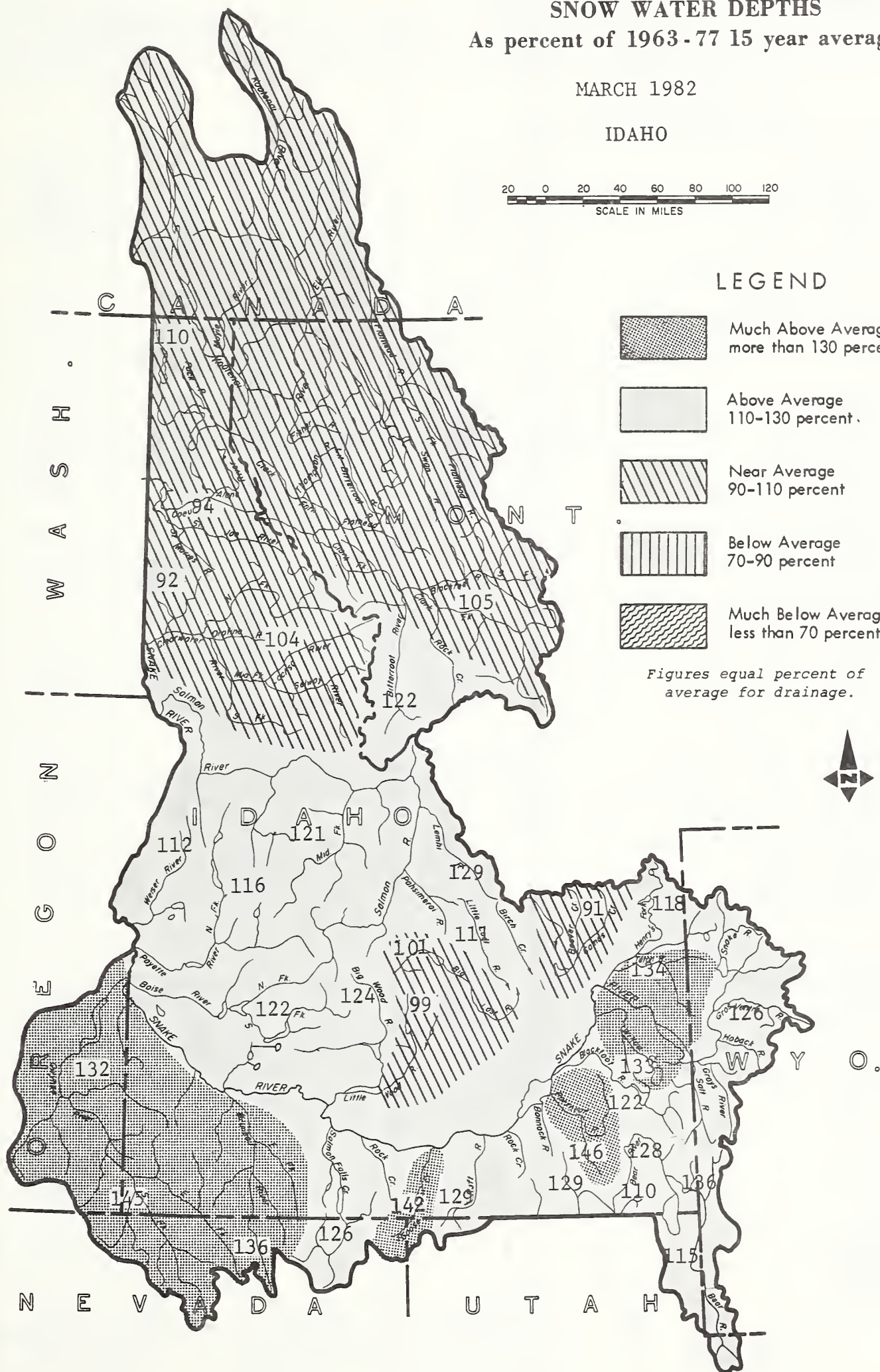
IDAHO



LEGEND



Figures equal percent of average for drainage.



RESERVOIR STORAGE (1,000 Ac. Ft.)

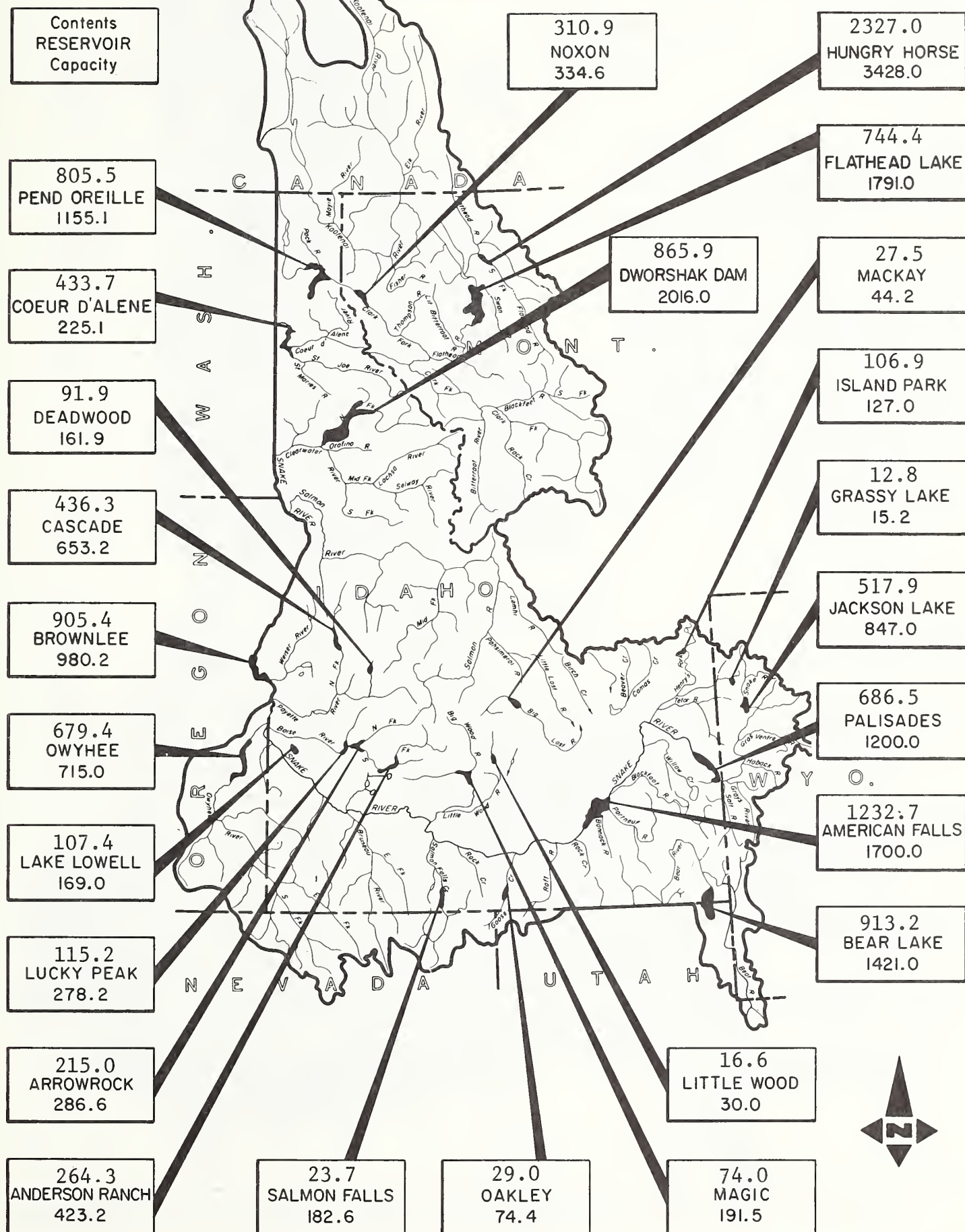
RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1963-77 AVERAGE
UPPER COLUMBIA BASIN				
Clark Fork - Pend Oreille				
Hungry Horse	3428.0	2327.0	2769.0	2200.0
Flathead	1791.0	744.4	858.2	994.6
Pend Oreille	1155.1	805.5	896.7	376.0
Noxon	334.6	310.9	318.2	299.1
Spokane				
Coeur d'Alene	225.1	433.1	217.5	121.6
SNAKE BASIN				
Snake				
Jackson Lake	624.1	517.9	556.3	615.6
Palisades	1200.0	686.5	1123.8	903.6
American Falls	1673.0	1232.7	1512.3	1241.9
Island Park	127.0	106.9	122.3	114.6
Grassy Lake	15.2	12.8	12.6	10.6
Brownlee	980.2	905.4	734.2	465.2
Goose-Trapper Creeks				
Oakley	74.4	29.0	28.9	29.3
Salmon Falls Creek				
Salmon Falls	182.6	23.7	55.1	55.5
Big Lost				
Mackay	44.2	27.9	43.8	32.4
Big Wood				
Magic	191.5	74.0	120.0	113.9
Little Wood				
Little Wood	30.0	16.6	21.9	17.8
Fish Creek				
Carey Valley	14.4	5.7	8.4	--
Boise				
Anderson Ranch	423.2	264.3	292.2	256.5
Arrowrock	286.6	215.0	281.1	251.4
Lucky Peak	278.2	115.2	231.4	87.1
Lake Lowell (Deer Flat)	169.0	107.4	120.9	132.6
Owyhee				
Owyhee	715.0	679.4	562.9	491.3
Payette				
Cascade	653.2	436.3	578.7	338.8
Deadwood	161.9	91.9	114.8	85.9
Weiser				
Mann Creek	11.1	9.4	9.3	--
Clearwater				
Dworshak	2016.0	865.9	1510.5	--
GREAT BASIN				
Bear				
Bear Lake	1421.0	913.2	1052.9	1030.6

RESERVOIR STORAGE

USABLE CONTENTS (1,000 Acre Feet)

MARCH 1982

50 0 50 100 150
SCALE IN MILES



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST ^c		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year Average [†]

UPPER COLUMBIA BASINKOOTENAI RIVER

Leonia	(at)	9300	105	Apr-Sep	--	8858
		8090	105	Apr-Jul	--	7708
		6460	105	Apr-Jun	--	6144

PEND OREILLE RIVERClark Fork River

Whitehorse Rapids	(at)	14700	107	Apr-Sep	--	13781
		13400	107	Apr-Jul	--	12519
		11400	107	Apr-Jun	--	10633

Priest River

Priest River <u>1/</u>	(at)	1060	118	Apr-Sep	--	895
		996	118	Apr-Jul	--	841

SPOKANE RIVER

Post Falls <u>2/</u>	(at)	3114	107	Apr-Sep	--	2910
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St. Joe River

Calder	(at)	1380	105	Apr-Sep	--	1309
		1300	105	Apr-Jul	--	1238

SNAKE RIVER BASINSNAKE RIVER - MAIN STEM

Moran <u>3/</u>	(at)	1121	124	Apr-Sep	--	903
Palisades Inflow <u>3/</u>		4777	124	Apr-Sep	--	3863
Heise <u>4/</u>	(nr)	5093	120	Apr-Sep	--	4247
Blackfoot <u>5/</u>	(nr)	5450	119	Apr-Jul	--	4579

Henrys Fork

Ashton <u>6/</u>	(nr)	765	104	Apr-Sep	--	737
Rexburg <u>7/</u>	(nr)	1750	115	Apr-Sep	--	1534

Portneuf River

Topaz	(at)	140	130	Mar-Sep	--	108
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Oakley Reservoir Inflow

		45	125	Mar-Sep	--	36
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Salmon Falls Creek

San Jacinto	(nr)	119	125	Mar-Sep	--	95
		113	126	Mar-Jul	--	90
		108	127	Mar-Jun	--	85

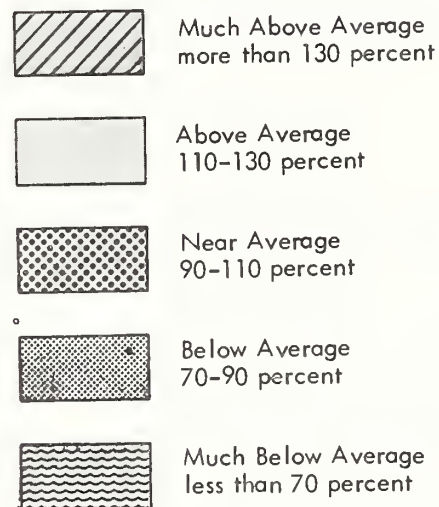
(c) Assuming normal meteorological conditions.

+ 1963-1977 period.

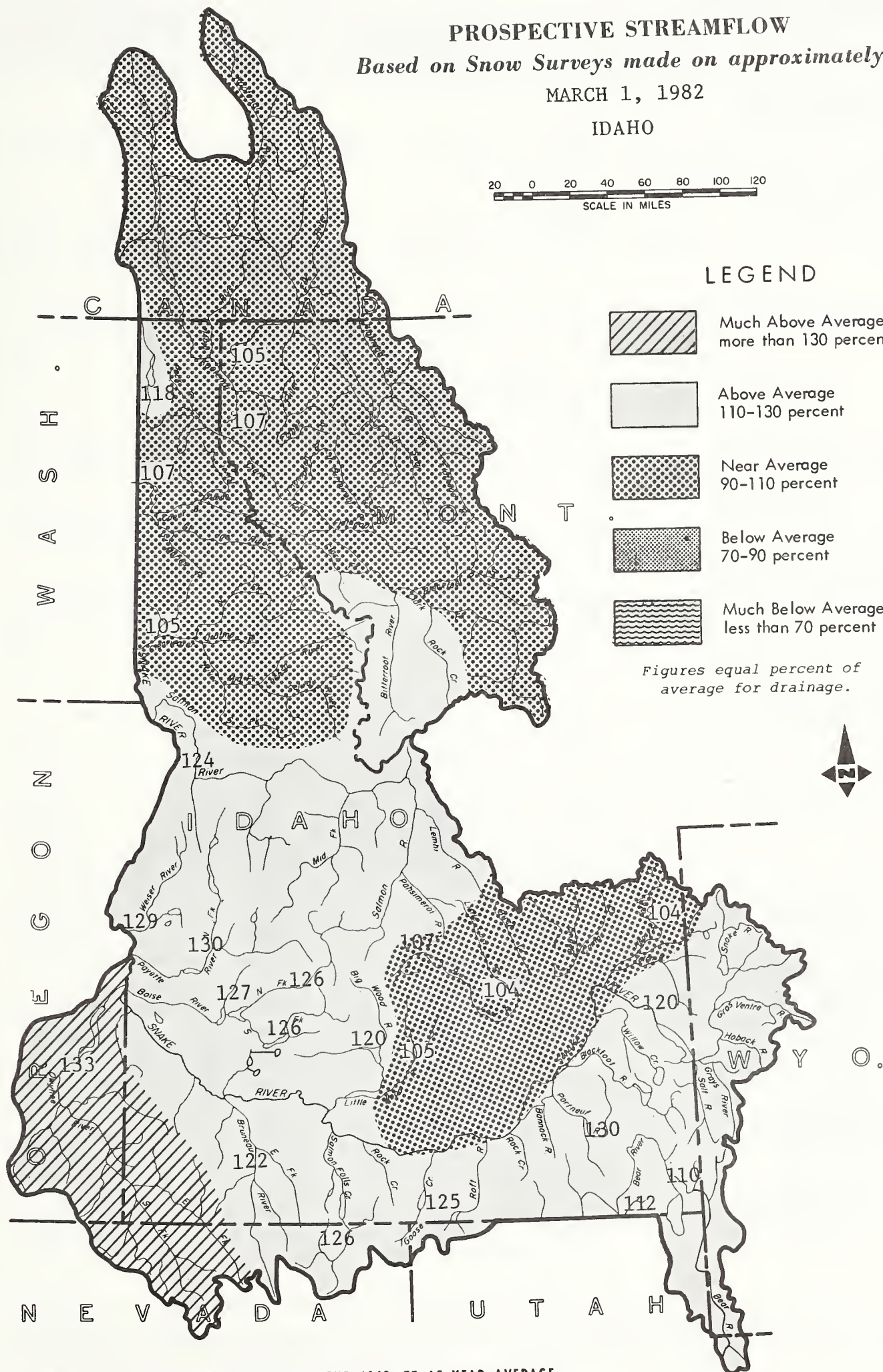
PROSPECTIVE STREAMFLOW
Based on Snow Surveys made on approximately
MARCH 1, 1982
IDAHO

20 0 20 40 60 80 100 120
 SCALE IN MILES

LEGEND



*Figures equal percent of
average for drainage.*



FORECASTED WATER SUPPLY AS PERCENT OF THE 1963-77 15 YEAR AVERAGE

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT		THIS YEAR			PAST RECORD	
		FORECAST ^c		FORECAST PERIOD	THOUSAND ACRE FEET	
		Thousand Acre Feet	Percent of Average		Last Year	Average [†]
<u>Bruneau River</u>						
Hot Springs	(nr)	305	122	Mar-Sep	--	251
<u>Little Lost River</u>						
Howe	(nr)	47	104	Apr-Sep	--	45
Wet Creek	(bl)	41.7	102	Apr-Sep	--	41
		26.5	102	Apr-Jun	--	26
<u>Big Lost River</u>						
Howell Ranch	(at)	241	107	Apr-Sep	--	225
		165	107	Apr-Jun	--	154
Mackay <u>8/</u>	(nr)	216	106	Apr-Sep	--	204
<u>Big Wood River</u>						
Magic Reservoir		397	120	Apr-Sep	--	319
Inflow <u>9/</u>		360	119	Apr-Jul	--	303
		398	120	Mar-Jul	--	332
<u>Little Wood River</u>						
Carey	(nr)	113	106	Apr-Sep	--	107
		104	105	Apr-Jul	--	99
		91	105	Apr-Jun	--	87
<u>Boise River</u>						
Twin Springs	(nr)	924	126	Apr-Sep	--	733
		852	126	Apr-Jul	--	676
Boise <u>10/</u>	(nr)	2100	127	Apr-Sep	--	1656
		1950	127	Apr-Jul	--	1536
		1727	127	Apr-Jun	--	1360
<u>South Fork</u>						
Anderson Dam <u>11/</u>	(at)	783	126	Apr-Sep	--	622
<u>Owyhee River</u>						
Gold Creek., Nev. <u>12/</u>	(nr)	28	128	Apr-Jul	--	23
Owyhee, Nev. <u>12/</u>	(nr)	92	115	Apr-Jul	--	80
Lake Owyhee		520	133	Apr-Sep	167	392
net inflow <u>13/</u>		670	131	Mar-Jul	185	510
<u>Payette River</u>						
Horseshoe Bend <u>14/</u>	(nr)	2415	130	Apr-Sep	--	1860
<u>North Fork</u>						
Cascade <u>15/</u>	(at)	711	126	Apr-Sep	--	564
Banks <u>15/</u>	(nr)	915	126	Apr-Sep	--	726

(c) Assuming normal meteorological conditions.

† 1963-1977 period.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT		THIS YEAR			PAST RECORD	
		FORECAST ^c		FORECAST PERIOD	THOUSAND ACRE FEET	
		Thousand Acre Feet	Percent of Average		Last Year	Average [†]
<u>Weiser River</u>						
Weiser	(nr)	572	129	Apr-Sep	--	442
		721	129	Mar-Sep	--	558
<u>Salmon River</u>						
Whitebird	(at)	8940	124	Apr-Sep	--	7196
<u>Clearwater River</u>						
Spalding	(at)	9140	105	Apr-Sep	--	8672

GREAT BASIN

<u>BEAR RIVER</u>						
Harer	(at)	366	110	Apr-Sep	--	332
<u>Montpelier Creek</u>						
Montpelier	(nr)	16.5	133	Apr-Sep	--	12.4
<u>Cub River</u>						
Preston	(nr)	56	112	Apr-Sep	--	50
		53	113	Apr-Jul	-- [†]	47

- 1/ Observed flow corrected for storage in Priest Lake.
- 2/ Observed flow corrected for storage in Coeur d'Alene Lake.
- 3/ Corrected for storage in Jackson Lake.
- 4/ Corrected for storage in Jackson Lake and Palisades.
- 5/ Corrected for storage in Jackson Lake, Palisades, Island Park, Henry's Lake, Grassy Lake and diversions between Heise and Blackfoot.
- 6/ Corrected for storage in Henry's Lake and Island Park Reservoir.
- 7/ Corrected for storage in Henry's Lake, Island Park, Grassy Lake and diversions between Ashton and Rexburg.
- 8/ Observed flow corrected for storage in Mackay Reservoir.
- 9/ Combined flow Big Wood River nr. Bellevue and Camas Creek nr. Blaine.
- 10/ Corrected for storage in Arrowrock, Anderson Ranch and Lucky Peak.
- 11/ Corrected for storage in Anderson Ranch Reservoir.
- 12/ Corrected for storage in Wildhorse Reservoir.
- 13/ From BUR records of inflow.
- 14/ Corrected for storage in Cascade and Deadwood Reservoirs.
- 15/ Corrected for storage in Cascade Reservoir.

Cooperative forecasts released by Soil Conservation Service and National Weather Service.

(c) Assuming normal meteorological conditions.

[†] 1963-1977 period.

SNOW

DRAINAGE BASIN and or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
						Last Year	Average
Name & Drainage	Elevation						
Above Burke	Coeur d'Alene	4100	2/25	51	18.1	9.0	22.9*
Above Gilmore	Lemhi	8320	2/26	34	9.8	5.7	8.2
Allen Ranch	Blackfoot	6470	3/2	37	11.5	--	--
Antelope Ridge	Owyhee	6180	2/27	26	10.8	0.0	6.9*
Aspen Grove	Willow	6500	2/24	43	16.6	8.0	10.7*
Aspen Hall Pass (A)	Lemhi	8200	2/26	39	11.8	6.4	8.5*
Atlanta Summit	Boise	7600	2/26	107	38.3	17.8	31.2*
Atlanta Townsite	Boise	5280	2/25	40	12.6	5.6	--
Austin Bros. Ranch	Blackfoot	6400	3/2	32	10.0	4.4	8.3
Bad Bear	Boise	4940	3/1	43	15.9	6.5	13.5
Badger Gulch	Trapper	6660	2/25	45	16.6	4.7	10.7
Banner Summit	Payette	7040	2/25	87	27.1	19.1	--
Battle Creek (A)	Owyhee	5710	2/24	6	2.3	0.0	3.2
Bear Basin	Little Salmon	5350	2/25	55	17.0	11.2	--
Bear Canyon	Big Lost	7900	2/25	56	16.8	13.2	15.9
Bear Creek (Nv)	Jarbridge	8040	2/26	59	23.0	7.9	18.0*
Bear Mountain	Clark Fork	5400	2/26	145	61.8	37.4	53.7*
Bear Saddle	Mann Creek	6180	2/25	70	25.0	16.5	--
Beaverdam Creek	Portneuf	6120	2/27	29	11.6	4.4	--
Bennett Mountain	Canyon Creek	6560	2/27	53	19.4	6.9	15.0*
Benton Meadow	Priest	2370	2/25	19	7.4	0.0	6.4
Benton Spring	Priest	4920	2/25	45	15.8	8.8	17.7
Big Creek Summit	Salmon	6580	2/25	113	40.2	21.0	31.6
Big Springs	Henrys Fork	6400	2/26	55	20.2	12.1	18.7
Birch Creek	Willow	6800	2/24	37	13.7	5.4	10.7*
Black Canyon	Henrys Fork	7960	2/26	91	36.6	22.2	29.9*
Black Moose	Henrys Fork	8160	2/26	100	40.2	21.8	36.1*
Blue Ridge	Blackfoot	6780	2/25	62	24.3	10.3	--
Bogus Basin	Payette	6340	3/1	61	22.5	9.3	20.7
Bogus Basin Road	Boise	5540	3/1	19	7.6	0.0	5.8
Bone	Willow	6200	2/25	25	8.6	3.4	7.4*
Borah (A)	Pahsimeroi	8250	2/26	16	5.0	3.0	--
Bostetter Rgr. Sta.	Trapper	7500	2/25	62	23.8	7.9	17.1
Boulder Creek	Weiser	5440	3/1	64	24.2	13.2	21.8
Boy Scout Camp	Raft	7740	2/25	42	13.9	7.7	12.8
Breezy Saddle	Clearwater	5010	2/26	81	25.1	12.0	--
Brockman Station	Willow	6430	2/24	33	13.6	5.9	--
Brundage Mountain	Little Salmon	7560	2/25	140	51.0	26.0	40.6*
Bruno Creek	Salmon	7920	3/2	72	23.5	--	--
Bull Basin (A)	Owyhee	5480	2/24	T	0.1	0.0	1.2
Camas Creek Divide	Big Wood	5710	2/27	42	15.3	4.7	10.0*
Camp Creek	Beaver	5780	2/25	28	8.1	6.8	9.8
Cayuse Airstrip	Clearwater	3500	2/26	38	10.5	1.6	12.0
Cedar Creek	Cedar	6820	2/26	27	9.2	3.9	9.3
Chilco Ridge	Hayden	3650	2/23	12	5.6	0.0	--
Chimney Creek	Big Wood	6400	2/27	47	16.9	8.5	--
Christensen Ranch	Mink	5560	2/23	27	9.5	5.0	7.9
Clear Creek Meadows	Raft	9420	2/25	68	23.0	13.6	19.1
Cliff Canyon	Malad	7200	2/23	29	10.0	3.0	--
Cold Springs	Portneuf	7000	3/4	72	25.2	--	--
Conie Ridge	Hayden	3900	2/23	15	6.7	0.0	--
Copes Camp	Lemhi	7520	2/26	33	9.2	2.9	6.6
Copper Basin	Big Lost	7640	2/25	22	7.5	6.7	8.4
Copper Ridge	Coeur d'Alene	4820	2/24	62	25.2	7.6	25.1
Corner Creek	Hayden	3150	2/23	3	1.6	0.0	--
Couch Summit	Boise	6840	2/27	55	18.4	8.6	16.9*
Cozy Cove	Deadwood	5380	2/25	48	14.6	10.5	15.2*
Crater Meadows	Clearwater	5960	2/26	115	39.0	17.6	38.9
Crawford Rgr. Sta.	Payette	4860	2/25	20	7.5	3.5	7.7
Crooked Fork	Lochsa	3610	2/26	41	13.5	4.6	12.7*
Cub River Rgr. Sta.	Cub	5450	2/23	23	8.4	4.9	8.4
Daniels Creek	Malad	6270	2/23	23	7.1	3.7	--
Darby Canyon (Wy)	Teton	8250	2/26	68	24.2	11.3	19.8*
Deadline	Salmon Falls	7400	2/26	56	21.8	8.9	18.8
Deadline South	Salmon Falls	7450	2/26	62	23.6	9.8	--
Deadman Gulch	Boise	5600	2/28	51	19.2	5.8	14.7*
Deadwood Airstrip	Deadwood	5360	2/25	44	14.1	11.9	14.4
Deadwood Summit	Deadwood	6860	2/25	120	46.6	30.6	41.3*
Dempsey Creek	Portneuf	6100	2/27	39	15.1	4.3	11.0
Dollarhide Summit	Big Wood	8420	2/25	86	27.9	15.0	21.1
Double Springs Pass (A)	Pahsimeroi	8380	2/26	39	11.9	4.8	8.7*
Dry Basin	Mink	7820	2/23	82	29.5	11.6	24.2*

(b) 1963-1977, 15 year period. * Estimated 1963-77 15 Year Average.

(A) Aerial observation Water content estimated.

SNOW

DRAINAGE BASIN and or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
						Last Year	Average
Name & Drainage	Elevation						
Dry Creek Flat	Malad	6360	2/23	25	9.3	0.8	7.4
Dry Fork	Big Lost	7220	2/24	46	15.2	10.6	14.6*
East Creek	Portneuf	7000	2/27	46	18.0	4.1	--
East Twin	Palouse	4130	2/25	29	11.8	0.0	10.8
Elk Butte	Clearwater	5550	2/26	100	31.7	14.2	34.7
Emigrant Summit	Bear	7390	2/24	78	29.4	8.5	21.7
Emigration Canyon	Bear	6500	2/24	35	11.4	5.0	9.7
Fairview Guard Sta.	Little Lost	6750	3/1	20	5.7	3.2	4.2
Fish Lake Airstrip	Lochsa	5650	2/26	104	36.3	17.3	36.3
Fishpole Lake	Big Lost	9300	2/25	60	19.5	14.7	17.3*
Forty-nine Meadows	Clearwater	4830	2/26	72	23.8	11.9	27.2
Fourth of July Summit	Coeur d'Alene	3200	2/25	23	6.4	0.0	8.9
Fox Creek (Nv)	Jarbridge	6750	2/26	31	12.5	3.6	9.7
Franklin Basin	Cub	8040	2/23	70	26.2	9.9	22.7
Franklin Basin (S)	Cub	8170	2/23	83	30.2	--	--
Freds Mountain (Wy)	Teton	8150	2/25	79	28.1	12.1	16.9*
Galena	Big Wood	7440	3/1	71	22.6	12.7	17.0
Galena Summit	Big Wood	8780	3/1	86	26.9	14.4	20.6
Garfield Rgr. Sta.	Little Wood	6560	3/2	28	8.7	8.5	9.8
George Creek (Ut)	Raft	8840	2/25	68	23.7	8.7	--
George Peak	Raft	9000	2/25	79	31.8	--	--
Gibbons Pass (Mt)	Bitterroot	7100	2/23	78	26.8	16.5	21.2
Giveout	Montpelier	6860	2/24	47	14.9	6.1	11.1
Goat Creek (Nv)	Salmon Falls	8880	2/26	57	21.3	5.6	15.7
Graham Guard Sta.	Boise	5690	2/25	50	17.9	7.9	--
Graham Ranch	Big Wood	6270	3/1	47	13.8	9.5	12.8
Grassy Lake (Wy)	Henrys Fork	7265	2/24	105	39.1	20.3	30.6
Hall Creek	Lemhi	7560	2/26	23	6.6	2.3	4.8*
Halverson Creek	Kootenai	4850	2/26	120	53.0	35.2	39.1
Hemlock Butte	Clearwater	5810	2/26	133	43.4	18.1	43.6*
Hilts Creek	Little Lost	8000	2/25	39	11.8	7.8	--
Hoodoo Basin (Mt)	Clark Fork	6000	2/25	137	49.9	30.6	45.4*
Hoodoo Creek (Mt)	Clark Fork	5900	2/25	130	47.5	25.8	42.0*
Horseshoe Basin	Bear	8000	2/23	72	27.5	10.9	22.0*
Howell Canyon	Marsh Creek	7980	2/25	91	35.7	9.0	22.1
Humboldt Gulch	Coeur d'Alene	4250	2/25	42	13.6	--	--
Hummingbird Springs(Nv)	Jarbridge	8870	2/26	75	27.4	8.9	19.5
Hyde Pasture (A) (Or)	Jordan-Owyhee	5760	2/24	18	6.8	0.1	5.3
Hyndman Creek	Big Wood	7440	2/26	48	12.7	10.8	--
Idaho City Townsite	Boise	4000	3/1	22	8.8	--	--
Indian Grove	Raft	7560	2/25	30	9.7	5.2	--
Indian Meadows	Teton	8240	2/26	116	44.4	20.5	30.9*
Iron Bog	Big Lost	7650	2/24	37	11.0	10.3	12.8*
Iron Mine Creek	Fish Creek	6300	3/2	32	9.7	8.3	9.9
Irving Creek	Medicine Lodge	7035	2/24	20	3.9	4.1	5.2*
Island Park	Henrys Fork	6290	2/26	50	16.7	11.6	15.1
Jackpine Creek (Wy)	Teton	7350	2/26	64	23.2	9.9	19.6*
Jackson Peak	Boise	7070	2/25	86	30.8	17.6	27.3
Johnson Creek	Blackfoot	6730	3/2	43	13.1	5.6	--
Kellogg Peak (A)	Coeur d'Alene	5560	2/25	72	27.3	8.9	28.2*
Kilgore	Camas Creek	6320	2/27	32	10.4	8.8	10.6
Kit Carson Pasture	Selway	4950	2/25	34	11.7	5.1	--
Kruze Meadow	Clearwater	4780	3/1	32	11.9	--	--
Lake Fork	Payette	5290	2/24	47	14.8	8.7	14.6
Langford Flat Creek	Salmon Falls	5980	2/26	17	6.6	--	--
Latham Springs	Henrys Fork	7630	2/26	85	34.0	20.0	28.6
Lava Creek	Willow	7350	2/24	60	20.8	8.0	--
Leadbelt	Big Lost	6700	2/24	16	6.4	7.2	8.6
Leatherman Pass	Pahsimeroi	9860	2/26	61	20.3	14.4	20.2*
Lemhi Pass (Mt)	Beaverhead	7480	2/26	30	8.8	5.0	8.1
Lemhi Ridge (Mt)	Beaverhead	8100	2/26	38	10.8	6.2	8.9*
Liberty Spring	Mink	8600	2/23	124	46.9	13.7	32.7
Little Beaver	Montpelier	6970	2/24	56	18.5	8.0	14.0
Little Camas Flat	Boise	4940	2/27	27	10.9	1.6	5.9*
Logger Springs	Raft	8120	2/25	52	15.8	7.6	--
Lolo Pass	Lochsa	5240	2/25	83	31.8	12.9	27.5
Lookout	Coeur d'Alene	5140	2/25	85	30.6	16.6	31.0
Lost Garfield	Little Lost	6600	3/1	17	4.8	3.4	3.7
Lost Lake	Clearwater	6110	2/26	147	49.7	25.7	50.0*
Lost Wood Divide	Big Lost	7900	2/26	71	23.1	14.2	20.4*
Lower Elkhorn	Portneuf	6960	2/23	49	18.1	5.5	12.7*
Lower Home Canyon	Montpelier	7640	3/1	46	15.5	6.4	12.2*
Lower Pebble	Portneuf	5780	2/27	50	19.5	3.8	12.3*

(b) 1963-1977, 15 year period. * Estimated 1963-77 15 Year Average.

(A) Aerial observation Water content estimated.

SNOW

DRAINAGE BASIN and or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
Name & Drainage	Elevation					Last Year	Average
Lower Sands Creek	Coeur d'Alene	3120	2/24	45	15.2	4.1	17.5*
Lucky Dog	Henry's Fork	6860	2/26	73	27.8	16.0	22.1
Magic Mountain	Rock Creek	6880	2/26	57	22.2	9.0	16.4
Mann Creek	Weiser	6080	2/25	70	24.8	--	22.5*
Mascot Mine	Big Wood	7780	2/26	49	14.8	10.5	13.1
McRenolds Reservoir	Teton	6720	2/26	53	18.5	10.1	17.4*
Meadow Lake	Lemhi	9150	2/26	57	17.8	10.9	16.5
Mill Creek Summit	Salmon	8800	2/23	81	26.5	12.4	20.3
Mink Creek	Portneuf	6410	2/28	59	24.6	8.8	15.5
Montpelier Creek	Montpelier	6540	2/24	32	10.0	3.1	7.5
Moonshine	Little Lost	7440	3/1	36	10.1	5.4	9.3
Moore's Creek Summit	Boise	6100	3/1	95	31.5	14.9	28.6
Moose Creek	North Fork Salmon	6200	2/26	59	19.8	12.6	15.6
Morgan Creek	Salmon	7600	2/26	47	14.7	7.9	12.8
Morse Creek Sawmill	Salmon	7120	2/26	31	9.2	--	--
Moscow Mountain	Palouse	4410	2/25	46	16.8	4.1	15.6
Mosquito Ridge (A)	Coeur d'Alene	5200	2/25	106	38.3	23.3	34.6
Mount Baldy	Big Wood	8920	2/27	74	23.2	13.6	18.4
Mud Creek	Willow	7100	2/25	67	23.6	13.3	--
Mud Flat	Owyhee	5730	2/27	24	9.0	1.6	6.0*
Muldoon	Little Wood	6320	3/2	15	5.1	5.4	7.6
Nez Perce Pass (Mt)	Bitterroot	6570	2/25	55	19.5	8.5	15.7
North Putnam	Ross Fork	7240					
One Mile Summit	Raft	7330	2/25	13	4.3	2.5	6.1
Oxford Mountain	Malad	6800	2/23	34	11.6	4.3	9.4
Oxford Spring	Malad	6740	2/23	38	12.8	3.4	--
Packsaddle Spring	Teton	8200	3/2	82	32.7	14.3	--
Pebble Creek	Portneuf	6400	2/27	48	18.5	5.6	14.5
Perreau Meadows	Salmon	8500	3/1	54	17.7	8.8	--
Phillips Bench (Wy)	Teton	8200	2/25	97	34.7	11.5	23.2*
Pierce Rgr. Sta.	Clearwater	3080	3/1	32	11.7	1.6	10.9
Pine Creek Pass	Teton	6810	2/25	57	20.0	8.8	15.6
Placer Creek	Weiser	5860	2/26	56	18.8	12.8	16.5
Pole Creek Rgr. Sta.	Jarbridge	8360	2/26	60	23.2	7.8	18.6
Prairie	Boise	4800	2/27	19	7.0	0.0	5.8
Putnam	Portneuf	7220	3/4	71	23.8	--	--
Rammel Mountain	Teton	8240	2/26	112	42.7	19.1	--
Red Canyon (A)	Owyhee	6520	2/24	21	8.0	0.1	6.6
Redfish Lake Flat	Salmon	6560	2/24	40	13.4	6.5	8.9*
Robinson Creek Ridge	Weiser	6220	2/25	51	20.2	--	18.4*
Rock Flat Summit	Payette	5310	2/25	48	16.2	11.5	16.7
Roland Summit (A)	St. Joe	5120	2/25	93	30.0	11.4	31.3
Sage Creek Saddle	Spokane	4080	2/23	45	17.2	2.6	--
Savage Pass	Lochsa	6170	2/26	82	29.0	15.0	24.1
Sawmill Canyon	Little Lost	7000	3/1	30	8.4	4.9	6.9
Sawtell Mountain	Henry's	8720	2/26	93	33.6	21.0	28.4*
Schwartz Lake	Lemhi	8540	2/26	49	15.9	6.0	10.8*
Schweitzer Basin	Pend Oreille	6090	3/2	129	46.9	--	--
Schweitzer Bowl	Pend Oreille	4800	3/2	78	31.2	--	28.1*
Schweitzer Ridge	Pend Oreille	6200	3/2	118	44.6	29.2	40.3*
Secesh Summit	Payette	6520	2/24	110	41.2	21.6	30.9*
Sedgwick Peak	Portneuf	7850	2/27	63	24.6	7.3	--
Seventy-Six Creek (Nv)	Jarbridge-Bruneau	7100	2/26	47	17.5	5.1	10.4
Shanghai Summit	Clearwater	4570	2/28	71	23.8	5.4	24.1
Sheep Mountain	Willow	6570	2/25	48	16.0	6.4	12.5*
Sherwin	St. Maries	3200	2/26	40	14.2	2.6	13.3
Shoshone Basin	Salmon Falls	5810	2/26	15	5.9	0.0	5.3
Silver City	Jordan-Owyhee	6400	2/27	44	16.8	5.6	13.7
Skitwish Ridge	Coeur d'Alene	5110	2/24	71	28.5	--	--
Slug Creek Divide	Blackfoot	7230	2/24	52	17.3	8.0	14.8
Soldier Rgr. Sta.	Big Wood	5740	2/27	39	12.5	6.4	11.5
Somsen Ranch	Willow Creek	6840	3/2	51	16.3	6.7	12.7
South Mountain	Jordan-Owyhee	6500	2/28	40	15.4	6.2	11.6
Squaw Flat	Weiser	6240	2/24	68	22.5	11.9	--
Squaw Meadow	Payette	5900	2/24	104	39.6	22.4	31.9
State Line	Teton	6660	2/25	44	14.4	8.3	12.7
Stickney Mill	Big Lost	7430	2/26	26	7.6	7.4	8.3
Strawberry Creek	Mink	5820	2/24	30	10.9	4.1	9.6
Strawberry Mink Divide	Mink	6720	2/23	61	21.0	7.5	18.7
Sturgill Ridge	Weiser	6680	2/25	84	30.6	--	26.1*
Sublett	Raft	5950	2/25	39	14.0	4.2	10.1
Succor Creek (A)	Jordan-Owyhee	6100	2/24	14	5.3	3.5	5.6
Sulphur Peak	Blackfoot	7070	3/2	46	15.3	6.5	--

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SNOW

DRAINAGE BASIN and or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
Name & Drainage	Elevation					Last Year	Average
Sunset (A)	Coeur d'Alene	5540	2/25	112	39.1	22.9	32.6*
Swede Peak	Little Wood	7640	3/2	57	17.2	11.2	15.2
Targhee Pass	Henry's Fork	6980	2/25	36	10.7	7.6	13.6*
Telfer Ranch	Fish Creek	5840	3/2	20	7.3	5.3	7.8
Teton Pass W.S. (Wy)	Teton	7740	2/25	80	29.6	11.3	21.0*
Tex Creek	Willow	6650	2/24	36	11.5	6.4	8.5*
Thorson Cabin	Weiser	5320	2/25	46	16.2	--	12.3*
Toponce	Portneuf	6160	3/4	56	22.6	--	--
Trinity Mountain	Boise	7770	2/26	121	45.3	20.7	38.2
Tripod Summit	Payette	5260	2/25	53	18.7	10.5	16.7
Twin Peaks (A)	Salmon	9190	2/26	72	23.6	11.9	23.0*
Twitchell Canyon	Ross Fork	6300	3/3	44	15.8	--	--
Upper Elkhorn	Portneuf	7140	2/23	60	20.3	6.9	16.4*
Upper Home Canyon	Montpelier	8560	3/1	77	28.1	10.4	19.9*
Valley View	Henry's Fork	6680	2/25	45	14.6	9.2	15.6
Vaught Ranch (A)	Owyhee	5830	2/24	T	0.1	0.0	4.1*
Vienna Mine	Salmon	8960	2/25	117	42.7	20.1	32.1
Vi Pont	Goose	7670	2/25	50	17.3	6.5	12.9*
War Eagle (A)	Jordan-Owyhee	7280	2/24	60	22.8	16.4	19.6*
Webb Creek	Clearwater	4720	3/1	32	12.1	0.0	--
Webber Creek	Medicine Lodge	6700	2/24	20	4.4	4.0	--
West Branch	Weiser	5560	3/1	72	25.0	--	--
West Twin	Palouse	4220	2/25	25	9.8	0.0	9.4
Wet Creek Summit	Little Lost	7680	2/25	34	9.7	7.4	10.7
Whiskey Flat	Montpelier	6960	2/24	40	12.6	2.8	8.5
White Elephant	Henry's Fork	7710	2/26	71	25.3	14.7	18.4*
Wildhorse Divide	Portneuf	6490	2/28	56	23.2	7.8	--
Williams Creek Summit	Salmon	7990	3/1	40	11.6	5.2	11.1
Willow Flat	Cub	6070	2/23	42	14.9	6.2	13.9
Wilson Creek (Ny)	Salmon Falls	7500	2/26	35	13.0	T	11.0
Wood Canyon Divide	Blackfoot	7450	3/2	57	19.7	6.9	--
Worm Creek	Cub	6620	2/23	50	16.9	8.0	--

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GOVERNMENT AGENCIES

States:

Idaho Department of Water Resources
State of Idaho Department of Fish and Game
University of Idaho
Idaho State University
Montana Agricultural Experiment Station
Montana State Water Conservation Board
Montana Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon Cooperative Snow Surveys
Oregon State Engineer and Corps of
State Watermasters
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

Federal:

U. S. Army Engineers

U. S. Department of Agriculture
Forest Service
ESCS Crop Reporting Service
SEA Agricultural Research

U. S. Department of Commerce
NOAA, National Weather Service

U. S. Department of the Interior
Bonneville Power Administration
Water and Power Resources Service
Fish and Wildlife Service
Water Resources Division, Geological Survey
National Park Service
Bureau of Land Management

PUBLIC UTILITIES

Washington Water Power Company
Idaho Power Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Blaine Soil Conservation District
Boise Project Board of Control
Idaho Water District #01
Little Wood River Irrigation District
Mann Creek Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control
Valley Soil Conservation District
Portneuf Soil and Water Conservation District
East Cassia Soil and Water Conservation District
West Cassia Soil and Water Conservation District
Camas Soil and Water Conservation District

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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